

US EPA ARCHIVE DOCUMENT

## **Oral Presentation:**

### **Synthesizing Environmental Justice Planning into Transportation Planning for Projects in the Southeastern United States through Enhanced Public**

**Involvement** for the USEPA Strengthening Environmental Justice and Decision-Making: A Symposium on the Science of Environmental Health Disproportionate Impacts, Washington, DC 16-18 March 2010

## **Background/Need for the Study:**

Although National Environmental Policy Act has since its enactment in 1970 included mandates for identification and evaluation of potential adverse social effects attributable to federal undertakings, and in fact cumulative effects attributable to private as well as public actions, the traditional transportation planning and project development process, including interagency consultation process and public involvement effort, has disproportionately favored environmental protection over environmental justice defined as the system of social dynamics and impacted-community preferences. This study strives to determine why and how this imbalance occurs, and provide a vector toward development of useful tools for correction.

## **Purposes of the Study:**

1. To identify current level of integration of environmental protection and environmental justice in transportation planning;
2. To assess attitudes relating to participants predisposition toward selection of specific public involvement techniques and level of satisfaction with public involvement plans specifically associated with major transportation investment project development;
3. To gain insights into public administrators' consideration of optimal public input in the context of major transportation investment alternatives analysis and NEPA documentation, to develop an appropriate model for eliciting optimal quality community input integrable into transportation project development.

## **Methodology:**

The research was conducted in an investigatory rather than experimental mode, since no hypothesis was tested. (20) Structured interview with environmental justice advocates, leaders representing business and faith-based communities, elected officials, representatives of key MPOs, State DOTs and federal resource agencies specifically including their public involvement teams and citizens advisory committees. Interview subjects were selected through **stratified random sample**.

52-question survey (same population descriptors): distribution 1500 surveys and return of 681, indicating 45.4% response. The survey was validated by a pilot survey administered to members exhibiting demographic characteristics similar to those marking the later survey sample population for verification of statistical reliability.

**Nominal and ordinal data was collected** and analyzed to determine validity, reliability and correlations. Since neither interval nor ratio data was collected, neither regression analysis nor replication was tested.

## Results:

Survey and structured interview results verify the imbalance between effectively addressing environmental protection and environmental justice during transportation major investment project development. Causations included disproportionate professional support and organizational as well as philosophical differentiation of civil rights, environmental justice and environmental protection as discreet and unrelated functional areas of concern; transportation professionals were shown as separated from environmental justice advocates and the lines of communication were shown to be weak.

Communication of technical and social information was shown to be weak due to strong reliance upon technical drawings, jargon and vernacular coupled with heavy usage of acronyms, tendency to one-way "informational" presentations rather than two-way communication designed to **cross-communicate technical and social dynamic information**. Survey results indicated that shared information was limited to "knowing that" as contrasted with authentic knowledge termed "knowing how."

**Oral, rather than written information exchange was preferred.** The most effective traditional tools were found to be: neighborhood association and homeowners' association meetings, public hearings, open-houses hosted by project sponsors, project stakeholders meetings. Oral presentation supplemented by visualization techniques such as Nihlson Visual Preference Surveys and computerized simulations were reported to be best. Activities supplying transportation, language interpreters, childcare and meals were best-attended and yielded best information exchange.

The **major investment study or major investment alternatives analysis stage of project development** was shown to be the most attractive in terms of public participation in comparison with systems level planning activities such as LRTP, PWP, UPWP, TIP/STIP programming.

## Conclusions:

Transportation planners in federal state and local agencies can effectively promote better synthesis of environmental justice through improved public involvement.

Public involvement programs that align social interests with resource agency interests during project development and NEPA document development and review capitalize upon professional advocacy in place within the agencies.

Similarly, public involvement programs that couple community interests with USDOT emphasis areas such as urban revitalization, land use policy reform, livable and sustainable communities, job creation promote environmental justice in competitive selection of projects for discretionary funding.

A **curriculum development model** based upon the Wiggins and Teague **Backward Learning** protocol can focus public involvement programs supporting major transportation investment project development through exchange of authentic knowledge (i.e. replicable "knowing how" rather than simple "knowing that"). Using key questions, this model moves through a 3-stage investigative analysis from statement of the transportation problem to selection and sequencing of specifically-tailored tools that "de-mystify" the project development process for the public participants, thereby equipping both them and project sponsors to exchange "authentic knowledge" in a form which can be readily integrated into project design and implementation.

# **COUPLE COMMUNITY INTERESTS WITH USDOT EMPHASIS AREAS**

- ENVIRONMENTAL JUSTICE**
- URBAN REVITALIZATION**
- LAND USE POLICY REFORM**
- LIVABLE COMMUNITIES INITIATIVE**
- SUSTAINABLE COMMUNITIES**
- JOB CREATION & SUSTAINABILITY**
- HUD/EPA/DOT COOPERATION**

# **PRE-EMPTIVE PROACTIVE COMMUNITY ACTION ELICITS PROJECT SPONSOR COOPERATION**

- ***ACTION* TO INCORPORATE COMMUNITY DYNAMICS, VALUES AND PRIORITIES INTO TRANSPORTATION PROJECTS BEFORE FINAL DESIGN IS MORE COST EFFECTIVE THAN *REACTION* TO POTENTIAL ADVERSE IMPACTS AFTER DESIGN OR ADVERSE IMPACTS AFTER CONSTRUCTION**
- **EARLY ACTION IS MORE POLITICALLY PALATABLE IN MOST REGIONS**
- **ALTERNATIVE POST-DESIGN AND POST-CONSTRUCTION LITIGATION IS EXPENSIVE AND COUNTERPRODUCTIVE TO COMMUNITY HEALTH & GROWTH**

# **FIVE MOST EFFECTIVE PUBLIC ENGAGEMENT OPPORTUNITIES**

- **NEIGHBORHOOD/COMMUNITY  
ASSOCIATION MEETINGS**
- **PUBLIC HEARINGS**
- **PROJECT SPONSOR OPEN HOUSES**
- **STAKEHOLDERS PROJECT SCOPING  
MEETINGS**
- **PROJECT PLANNING & DESIGN  
CHARRETTES**

# **MOST EFFECTIVE SELF-EDUCATION TOOLS FOR TRANSPORTATION PUBLIC ENGAGEMENT**

- **USDOT, STATE DOT &  
METROPOLITAN PLANNING  
ORGANIZATION (MPO) WEBSITES**
- **MPO CITIZENS ADVISORY COMMITTEES  
& FOCUS GROUPS PROCEEDINGS**
- **PUBLIC-ACCESSIBLE WEB-BASED  
GRAPHIC INFORMATION SYSTEMS (GIS)**
- **MPO & PROJECT SPONSOR HOSTED  
WORKSHOPS & VISUALIZATION  
EVENTS**

# **ALIGN COMMUNITIY INTERESTS WITH RESOURCE AGENCY INTERESTS DURING NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) STUDY**

- **US ARMY CORPS OF ENGINEERS,  
USEPA AND STATE WATER AGENCIES**
- **FEDERAL HIGHWAYS AND TRANSIT  
ADMINISTRATIONS & MPOS**
- **STATE HISTORICAL PRESERVATION  
OFFICER - HISTORICAL/CULTURAL &  
ARCHAEOLOGICAL ASSETS**
- **US FISH & WILDLIFE SERVICE**
- **US PARKS SERVICE**
- **US FOREST SERVICE**



# **OPPORTUNITIES FOR ENVIRONMENTAL JUSTICE COMMUNITY INPUT DURING TRANSPORTATION PLANNING & PROGRAMMING**

- **20-YR LONG RANGE PLAN (LRTP)  
DEVELOPMENT INCLUDING UPDATES  
& AMENDMENTS**
- **4-YR TRANSPORTATION IMPROVEMENT  
PROGRAM (TIP) DEVELOPMENT  
INCLUDING UPDATES & AMENDMENTS**
- **ANNUAL STATEWIDE RURAL PROGRAM  
OF PROJECTS DEVELOPMENT FOR  
FEDERAL TRANSIT FUNDING**

# ***WHY* ENVIRONMENTAL PROTECTION RECEIVES MORE ATTENTION THAN ENVIRONMENTAL JUSTICE IN TRANSPORTATION PLANNING AND PROJECT DEVELOPMENT**

- **ENVIRONMENTAL JUSTICE IS A  
RELATIVELY NEWER FOCUS THAN  
ENVIRONMENTAL PROTECTION**
- **MANY RESOURCE AGENCIES PROVIDE  
EXPERTISE IN ENVIRONMENTAL  
PROTECTION**
- **ENVIRONMENTAL PROTECTION IS  
*BETTER INTEGRATED* INTO THE  
PROGRAMMING AND PROJECT  
DEVELOPMENT OF TRANSPORTATION  
PROJECTS**

## **Background & Objectives:**

**While the National Environmental Policy Act (NEPA) has since its inception incorporated requirements for evaluation of potentially adverse social effects, the traditional interagency consultation and public involvement processes supporting NEPA for transportation projects have inadequately represented low-income, minority and low English proficiency factions. This study investigated the potential for infusing specific public involvement activities, techniques and accommodations to attract and sustain high-quality participation by at-risk groups so as to effectively integrate social dynamic information into the NEPA analysis and project recommendation.**

# **MOST EFFECTIVE PUBLIC ENGAGEMENT OPPORTUNITIES FOR BALANCING ENVIRONMENTAL JUSTICE & ENVIRONMENTAL PROTECTION ISSUES**

- **NEIGHBORHOOD/COMMUNITY  
ASSOCIATION MEETINGS**
- **PUBLIC HEARINGS**
- **PROJECT SPONSOR OPEN HOUSES**
- **STAKEHOLDERS PROJECT SCOPING  
MEETINGS**
- **SPECIAL INTEREST GROUP MEETINGS**
- **PROJECT PLANNING & DESIGN  
CHARRETTES**

## **IMPLICATIONS TOWARD FURTHER STUDY:**

- **MODEL CURRICULUM DEVELOPMENT FOR  
TRANSPORTATION MAJOR CAPITAL  
INVESTMENTS PUBLIC INVOLVEMENT PROGRAMS**
- **EXPANDED APPLICATION OF VISUALIZATION  
TECHNIQUES SUCH AS VISUAL PREFERENCE  
SURVEYS & COMPUTERIZED  
SIMULATIONS/ANIMATIONS**
- **RESEARCH LEARNING STYLE PREFERENCE  
CORRELATIONS IN ENVIRONMENTAL JUSTICE  
PROTECTED POPULATIONS**